Infinera Process Design Kit Available for Synopsys OptSim Circuit PIC Design Solution

Accelerates InP-based PIC Design and Production

MOUNTAIN VIEW, Calif., Nov. 7, 2018 /PRNewswire/ -- Synopsys, Inc. (Nasdaq: SNPS) today announced that, in conjunction with the American Institute for Manufacturing Integrated Photonics (AIM Photonics), Infinera Corp.'s process design kit (PDK) is now available for Synopsys' OptSim™ Circuit tool. The addition of the Infinera PDK to OptSim Circuit, an effort that is part of a key investment by AIM Photonics, enables users to schematically capture, simulate, and verify indium phosphide (InP)-based photonic integrated circuit (PIC) designs with Infinera's PDK building blocks, and then send the completed circuit design to Infinera for physical implementation, verification, and fabrication using Infinera's InP PIC process. This capability gives designers, for the first time, access to Infinera's industry-leading platform for InP-based PIC manufacturing.

One of the challenges faced by photonic foundries and PIC designers is the disconnect between the pace of technological advances in the industry and the readiness of the photonic design automation (PDA) infrastructure. Synopsys, a member of AIM Photonics, is driving the advancement of PIC technologies with its PIC Design Suite, which comprises the OptSim Circuit and OptoDesigner tools. The suite offers a seamless PIC design flow with photonic-aware physical layout capabilities enabled by support for foundry-specific PDKs. PDKs provide a crucial link between photonic circuit simulation and layout tools by supporting efficient design concept verification, signoff checks, and mask generation.

"Infinera's PDK helps OptSim Circuit users design and deliver large-scale InP-based PICs more efficiently," said Tom Walker, group director of R&D for Synopsys' Photonic Solutions. "OptSim Circuit users can quickly build and analyze complex PICs using the Infinera PDK, evaluate PIC performance at the system level to demonstrate that it meets or exceeds client specs, and clearly communicate the results to product development teams and customers."

"Enabling Infinera's PDK use on the OptSim Circuit simulation provides a valuable tool for foundry users," said Fred Kish, senior vice president, Infinera Development and Engineering. "This milestone enhances Infinera's unique capability to deliver an InP-PIC foundry kit supported by advanced simulation software, to further the proliferation of PIC technologies in many diverse applications."

"AIM Photonics is proud to collaborate with leading PIC partners such as Infinera, whose new process design kit complements AIM Photonics' numerous offerings by providing yet another platform for the efficient creation and fabrication of InP-based PIC designs," said Dr. Michael Liehr, chief executive officer of AIM Photonics and vice president for Innovation and Technology at SUNY Polytechnic Institute. "This effort supports advanced manufacturing in the critical, burgeoning PIC sector, and it lends further credence to the value of partnering with AIM Photonics to enable these cutting-edge capabilities. We are thrilled to continue our impactful work with Infinera as a member of AIM Photonics."

About Synopsys' Photonic Solutions

Synopsys is driving the PIC revolution with design automation solutions for a wide range of application requirements, from data communications to sensors and biomedical devices. Synopsys' PIC Design Suite, which comprises the OptSim Circuit and OptoDesigner tools, offers a seamless PIC design flow from concept to manufacturable design, as well as access to a single, world-class support channel.

About Synopsys

Synopsys, Inc. (Nasdaq: SNPS) is the Silicon to Software™ partner for innovative companies developing the electronic products and software applications we rely on every day. As the world's 15th largest software company, Synopsys has a long history of being a global leader in electronic design automation (EDA) and semiconductor IP and is also growing its leadership in software security and quality solutions. Whether you're a system-on-chip (SoC) designer creating advanced semiconductors, or a software developer writing applications that require the highest security and quality, Synopsys has the solutions needed to deliver innovative, high-quality, secure products. Learn more at www.synopsys.com.

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